COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

REPORT OF

DIVISION OF COMMUNICATIONS

CASE NO. PUC-2005-00007

IN THE MATTER OF INVESTIGATING DIRECTORY ERRORS AND OMISSIONS OF VERIZON VIRGINIA INC. AND VERIZON SOUTH INC.

September 7, 2006

STAFF REPORT

VERIZON DIRECTORY INVESTIGATION

CASE NO. PUC-2005-00007

INTRODUCTION

On January 21, 2005, the State Corporation Commission issued an Order Establishing Investigation in this proceeding in which the Commission noted significant incidences of errors and omissions in the Verizon directories and expressed concern that these problems, the effect of which are costly to both the customers and Verizon, be adequately addressed. During the 2004 directory period, directory complaints concerning Verizon Virginia Inc. and Verizon South Inc. ("Verizon" or "Telco") filed with the Commission increased ten-fold from 33 and 32 in 2002 and 2003 respectively, to 354 in 2004. The Commission directed the Staff "to investigate and review the directory listing processes of Verizon and its affiliates from the time listings are established until the listings are published in directories." The Staff was further directed "to identify the source or sources of the continuing publication errors and omissions," and then report its findings and recommendations to the Commission.

The focus of the Staff investigation was on errors and omissions, directly attributable to Verizon, in directory listings included as part of a subscription to regulated local exchange telecommunications services. This examination included yellow page listings that come with the purchase of business telephone service and the "blue" page listings used for government.

The Staff held multiple investigative meetings with Verizon and Verizon Information Services ("VIS"), a subsidiary of Verizon Communications Inc. responsible for publishing the directories in Virginia and other states. We analyzed retail and wholesale directory processes, consulted with other telephone companies responsible for directory publications, and interviewed customers and competitive local exchange carriers ("CLECs"). We also reviewed approximately 400,000 pages of documents provided by Verizon in response to Staff interrogatories and requests for production of documents.

On August 31, 2005, the Staff issued a Status Report[1] that found that the primary causes of the errors and omissions in Verizon's directories appeared to be attributable to several interrelated problems, including the merger of directory operations; converting directory related computer systems; unnecessarily cumbersome processes for both wholesale and retail listings; and human error.

During the course of our investigation, Verizon and the Staff discussed the events leading to the directory errors and omissions, identified the primary causes of the errors and omissions, and considered actions that could be undertaken to resolve the problem. As a result of these discussions, the Staff and Verizon have reached an agreement on an Offer of Settlement for Commission consideration. The Offer of Settlement seeks to address many of the issues discovered during the Staff investigation, and proposes a corrective action plan designed to reduce the errors and omissions in Verizon directories.

The proposed Offer of Settlement is attached hereto and contains the following agreed upon terms:

- A corrective action plan to compensate customers affected by past errors and omissions;

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[1] Case No. PUC-2005-00007, *Status Report of Division of Communications,* August 31, 2005, DCN 361248.

- An incentive plan under which Verizon will be required to meet a directory listing accuracy metric;
- Tariff revisions to expand the relief available to future customers who experience errors and omissions;
- Payments for multi-year business listing errors;
- New processes for customer verification of directory listings;
- Clarification that the Telco is in command and control with regard to decisions on republishing or supplementing a directory;
- Reporting requirements; and
- A directory hotline so customers can verify and correct errors and omissions before a directory is published.

The Staff believes that the terms of the Offer of Settlement will address and help correct past and any future problems, as well as improve the quality of Verizon directories. This Report provides a summary of the major findings of the Staff's investigation.

<u>THE DIRECTORY PROCESS</u>

Verizon's obligation to publish directory listings stems from several sources including the Telco's tariffs,[2] the Commission's service quality standards,[3] and

[2] Verizon South Inc. Virginia, General Customer Services Tariff, S2.3.9. Provision and Ownership of Directories – *The Company will furnish to its customers without charge, a minimum of one directory per access line.* Verizon Virginia Inc., General Regulations Tariff, S.C.C.-Va.-No. 201, C. 10. Provision and Ownership of Directories – *Directories are furnished by the Telephone Company to customers as an aid to the use of the service.*

[3] 20VAC5-427-120. B., *Rules For Local Exchange Telecommunications Company Service Quality Standards.* A LEC shall publish directories or cause its customers' listing information to be published in directories at yearly intervals.

interconnection agreements with CLECs. Directory listings consist of residential, business, professional, and organizational listings in white, yellow, and blue pages. White page listings come from the retail customer service records or the local service requests ("LSR") from wholesale customers. Yellow page listings are derived from the primary, or main, white page listings. Yellow page listings are grouped with other similar businesses under a heading of the customer's choice (e.g., "Lawyers"). Yellow page classified advertising falls under the purview of a commercial contract and is not a tariffed service. The blue page listings are reserved for government listings.

The structure of each listing is either straight line or complex. Straight-line listings are printed directory listings that typically take one line in the white pages of the printed book. A straight line listing normally consists of the customer's last name, first name or initial, street address, city, and the 7 or 10 digit telephone number. At the customer's request, certain modifications to the content of the listing are allowed.

Complex listings take more than one line in the printed white pages. Complex listings may include information found in straight-line listings, but also allow for other information as well, i.e., locations, department names, and so forth. Most complex listings are for business customers, although there are some residential complex listings, e.g., a second telephone number listed as "children's phone."

Verizon customer service representatives use service orders to create or update directory listings. At the wholesale level, CLECs provide directory listings to Verizon via the LSR. The directory listing data is compiled from Verizon's customer service record database and is eventually forwarded to VIS as the "golden source" for directory listing information. The golden source directory data is then incorporated into VIS' primary database known as "VAST," which stands for Verizon Advertising System for Tomorrow. VAST is the directory listing system used for Verizon directory publications in Virginia and other states.

For each directory publication cycle, VIS extracts data from VAST and transfers specific portions of the directory listing data for publication. Verizon publishes 39 directories in Virginia containing approximately 2,700,000 residential listings and over 500,000 business, professional and government listings. Each book is designed to include the directory listings for a specific community of interest.

Most Virginia directories are a single book combining both white and yellow pages. The larger metropolitan areas (Northern Virginia, Richmond, and South Hampton Roads) receive separate white and yellow page directories. Once the data is selected and extracted from the publication database, VIS sends the data to R. R. Donnelly & Sons, the contractor that is responsible for the actual publication of the printed directory.

WHAT WENT WRONG

The causes of Verizon's directory listing problems date back to 1997 when a decision was made to begin modernizing Bell Atlantic Corporation's ("Bell Atlantic") major database systems, a process scheduled to last seven years ending in 2004. Things became more complicated with the merger of Bell Atlantic and GTE Corporation ("GTE") in 2000.[4] This merger necessitated additional system conversions as the merged company, Verizon, began to merge Bell Atlantic and GTE's directory listing systems into a common Verizon automated database. The Verizon system conversion required manual "work arounds" to correct the errors that occurred when merging the databases.

[4] Joint Petition of Bell Atlantic Corporation and GTE Corporation, for approval of agreement and plan of merger, Case No. PUC-1999-00100, 1999 S.C.C. Ann. Rept. 321.

In addition to problems experienced with converting and merging the existing database systems, the Verizon database also needed to be synchronized with the separate VAST database maintained by VIS for directory publications. The majority of the directory errors and omissions occurred primarily because of discrepancies between the contents of the Verizon and VIS databases. These synchronization problems caused, in some cases, tens of thousands of listings to be rejected by VAST and required Verizon and VIS to correct manually erroneous listing information housed in their respective directory listing systems.

Errors and omissions also arose due to other factors unrelated to the system conversions, merger, and synchronization problems. Frequently, an error occurred as a result of human error in keying in the directory listing information. Errors also occurred when information provided by the customer was not verified or there was a misunderstanding on how a listing should appear in the directory. In addition, problems arose when procedures designed to ensure the accuracy of directories were not followed properly.

Moreover, service orders generated by Verizon or LSRs generated by CLECs may not have updated the VAST database correctly or the listings rejected by VAST may have been worked incorrectly. The fact that these databases were not synchronized allowed changes to be made in one database without matching entries being made in the other databases. Normal processing of service orders or LSRs in the Verizon golden source database should have caused data to update automatically to VAST. However, some service orders were rejected (i.e., did not automatically update the VIS database) and, therefore, required manual intervention by Telco Directory Support Centers ("DSCs"), which were responsible for processing all retail complex directory listings and for correcting all straight-line listings that did not correctly update to the VIS publishing systems database. There were also problems with the parameters defined for extracting the data for the publication of a particular directory.

According to Verizon, there is no one measure of minimum accuracy by which the directories are judged. Verizon measures the quality of the directory process in numerous and varied ways, including, but not limited to, complaints, listing rejects, sales adjustments, LVRs, wholesale trouble tickets, and published errors per 1,000 listings. Verizon indicated to the Staff that it has a 4% rejection rate for listings with the target of clearing/correcting 98% of the rejections prior to publication.

Furthermore, there is no one method for handling directory errors and omissions. For example, one-of-a-kind individual errors are handled by Verizon or the CLECs. Where errors occur that may affect an entire directory, "PRIDE" teams, consisting of cross functional specialists, identify the root cause of the errors, facilitate "fixes," and determine what corrective action should be taken.

The decision to reprint or supplement a directory, or to take no action at all, appears not to be based on any one factor. Customer reaction, expense, setting precedents, the relative importance of the missing listings, as well as media, regulatory, political, and competitive factors apparently all play a role. A supplement may be ordered rather than a full reprint because it is faster and less expensive to produce and distribute, may cause less customer confusion, and has fewer environmental impacts. Moreover, a supplement may be issued in lieu of a reprint depending upon the volume of affected customers, the nature of the problems, and whether discrepancies and errors could be identified and corrected quickly and easily.

The Staff was also unable to determine who actually controls the decision making process when determinations are made to issue a new directory, supplement a directory, or do nothing at all. The respective responsibilities of Verizon, VIS or other Verizon affiliates in the directory process and how issues are coordinated and resolved in a timely manner were not clear. It was also unclear to the Staff whether Verizon or VIS made the decision on the required accuracy level for directories.

Additionally, it appeared to the Staff that directory errors and omissions increased because there may have not been enough human resources devoted to the conversion and synchronization process. The Staff learned that the erroneous and duplicative listings resulting from the database conversion eventually required Verizon to hire temporary employees as well as former Verizon employees to review and correct manually the directories pending clean up and synchronization of the database. Verizon employees also had to be reallocated from other positions in order to make corrections manually, verify, proof check, and otherwise clean up the listings.

Finally, there appears to have been little financial incentive for Verizon to fix its directory related problems. Verizon's liability for errors and omissions in directory listings is limited to one-half of the amount of the fixed monthly charges applicable to local exchange services. Accordingly, the only financial consequence that would result from an error or omission in a directory was a small credit to the customer's bill.

CUSTOMER IMPACT

In this docket, 483 comments were filed by parties representing a broad spectrum of interests, including government officials, businesses and residential customers, and CLECs. Of the 483 comments, 236 reported errors in directory listings; 150 reported that listings had been omitted from the directory; and 149 commented that directory problems occurred for more than one year.

In addition to comments that unlisted telephone numbers were published, that incorrect listings were published, that listings were omitted, and that these problems occurred over multiple years, other comments, Commission complaints, and customer interviews yielded that:

- A major newspaper's circulation and classified listings were omitted from the directory.
- The owner of a lawn care company stated that he derived approximately 33 percent of his business from the yellow pages and that being listed under the wrong heading was extremely costly to his business.
- The owner of a franchised business home inspection service claimed that his business failed largely as a result of the thousands of dollars lost because of consecutive directory omissions.
- One health system considered mailing its own directory of listings to consumers when its local directory was published with some 400 errors.
- A dentist said that he was left out of the directory for three consecutive years and that, in addition to the missed opportunities for new clients, existing customers had to resort to calling him at home.

- One town's listings were left out of the directory altogether, with the exception of its main number that was listed under a local rescue squad.
- A major state university lost 75 out of its 78 listings because of a system conversion error.

CORRECTIVE ACTION

The Commission Staff became aware of the significant increase in errors and omissions and, in 2004, initiated an informal investigation. Verizon then reported to the Staff that it was taking corrective action to fix the problem. These corrective actions appeared to the Staff to increase after the Commission launched its formal investigation in early 2005.

Specifically, in 2004 Verizon organized an internal working group to find solutions to listing errors and omissions. This working group, named the Listing Quality Initiative ("LQI") Team, was formed with members from Wholesale, Retail, Information Technology, LiveSource (directory assistance) divisions of the Company, and members from VIS. The LQI Team examined the end-to-end process of listings and identified and implemented initiatives to improve the quality of the listing process. The LQI Team met weekly and continues to do so to identify any additional initiatives necessary to improve the quality of Verizon's directory publications. Senior executives (from both Verizon and VIS) provide the LQI with ongoing guidance and oversight.

As indicated above, as a result various system conversions in the former Bell Atlantic and GTE companies and in the VIS systems, several databases were used to produce directory listings. After examining the end-to-end process for the creation of directory listings, the LQI team identified the lack of synchronization between the databases of the telephone and directory companies to be the most significant source of potential directory listing errors.

The LQI Team also determined that the manual process employed to reconcile inconsistencies between the systems and process complex listings post-merger potentially added to listings discrepancies. Without a single master database, any listings corrected in one database were subject to subsequent errors introduced by this manual process.

Thus, Verizon concluded that the designation of a single database as the master repository of directory listings information was necessary, and that a significant effort would be required to ensure that the master database's records were correct. Once confidence in the accuracy of the master database was established, the publishing database could then be synchronized to it.

Based on the recommendations of the LQI, Verizon established a single database (eListings) as its master database for directory listings. As part of this initiative, Verizon retired its legacy systems, and eliminated manual processing of caption listings. The conversion of all caption listings in the eListings database has been completed, and errors resulting from this conversion process have been identified, reviewed and corrected.

Following this conversion and cleanup process, Verizon then began synchronizing its publishing database with the master eListings database. This was accomplished by reviewing all previously used manual documents for accuracy, as well as manually comparing 2004 and 2005 directories for discrepancies. All discrepancies between the databases were investigated, and the master eListings database was corrected as needed. The publishing database was then synchronized with eListings.

In order to prevent future directory errors, Verizon has created an ongoing, mechanized process to compare the eListings and publishing databases and ensure that the databases remained synchronized. This mechanized process identifies potential discrepancies for review and correction if needed; and then the publishing database is synchronized to the master eListing database. This process is utilized for each directory to increase the accuracy of listings in the eListing database, and to provide increased assurance that "do not publish" and "do not list" numbers are not inadvertently published or listed.

In addition, Verizon is implementing an enhancement to transmit all lines of caption listings to the publishing database when changes are made to a customer's caption listing, not just the caption lines that are being updated. This permits the entire caption to be viewed for analysis and comparison, keeping the databases in synch and reducing the risk of publishing incorrect information.

Verizon has advised the Staff that it has invested $8 million to resolve the problems causing past errors, and to prevent future errors in the system used to produce directory listings in Virginia. The LQI team continues to meet on a regular basis to identify opportunities to further enhance the quality of Verizon's directories. Verizon has represented that it is committed to producing high quality directories. The Staff will continue to monitor Verizon's progress under the terms of the incentive plan contained in the proposed Offer of Settlement.[5]

[5] For 2005, directory listing related complaints against Verizon were still at an unusually high volume of 157. Directory complaints have dropped significantly in 2006, however, coming in year-to-date at 35.

CONCLUSION

Verizon has cooperated with the Commission Staff during the course of this investigation and has responded in a positive fashion in an effort to improve the quality of its directories. The corrective actions undertaken by Verizon to date, the implementation of the corrective action plan in the proposed Offer of Settlement, and continued monitoring of the quality of Verizon directories should lead to better quality and accuracy in directory listings in Virginia. With the proper measures - including financial incentives, a specific required accuracy metric, tariff revisions, opportunities for customer verification of listing prior to publication, Verizon having command and control of the decision of whether to republish or supplement a directory, reporting, and a dedicated avenue for complaints - the Commission's objective is to ensure that Verizon directories are reasonably free of errors and omissions and that Verizon responds to any future problems that may occur in a timely fashion.

COMMONWEALTH OF VIRGINIA

BEFORE THE

STATE CORPORATION COMMISSION

COMMONWEALTH OF VIRGINIA, ex rel

STATE CORPORATION COMMISSION

CASE NO. PUC-2005-00007

Ex Parte: In the Matter of Investigating Directory Errors and Omissions of Verizon Virginia Inc. and Verizon South Inc.

OFFER OF SETTLEMENT

This Offer of Settlement represents the agreement between Verizon Virginia Inc. and Verizon South Inc. (collectively "Verizon") and the Staff of the State Corporation Commission ("Staff") as to the most appropriate resolution of this proceeding. Verizon and Staff therefore agree to, and request that the State Corporation Commission ("Commission") enter an order accepting, without change or condition, the following stipulated terms:

I. **Corrective Action Plan.** Verizon agrees to place an upfront payment of $2 million in an escrow account for the benefit of affected customers. Further, Verizon will make disbursements to affected customers in accordance with the terms of the corrective action plan to be developed by the Commission Staff, who will establish the parameters for inclusion in the affected customer group and payment amount(s) to each such affected customer, subject to approval by the Commission. Any amount of the $2,000,000 payment not paid to affected customers at the end of the sunset period, as provided in Section IX, will be paid to the Treasurer of Virginia. Verizon also will pay up to $4 million in incentive payments for future directory quality as outlined in Section II.

II. **Incentive Plan.** Verizon agrees to a directory listing accuracy rate of 99% (10 service affecting errors out of 1000 listings is the lowest acceptable accuracy rate). Within three years from the date the Commission approves this settlement proposal, the Staff will audit 80 directories of its choosing and measure service affecting errors proven to be Verizon's responsibility. Directories subject to audit are those published after the Commission approves the settlement proposal.

For each audited directory that fails to meet the metric, based on service affecting errors or omissions, Verizon will pay to the Treasurer of Virginia $50,000. Based on the Staff's audit of 80 directories, Verizon's liability shall not exceed $4 million under this incentive plan (80 x $50,000 = $4 million). Verizon will make

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the total payment for the directories that fail the metric at the end of the three-year audit period.

Service affecting errors for both white and yellow page tariffed listings are determined by the following criteria:

- Complete omission of a listing that was published in the Telco records
- Publication of a listing that was either non-listed, non-published, or no longer in service in Telco records
- Reversal of first/last name
- Misspelling of the listed name, incorrect telephone number, or any other error so as to make it unlikely that a user of the printed book could locate the listing in the expected alphabetical location or locate the correct number for the listing, including, but not limited to, the appearance of a listing under the appropriate yellow pages captioned heading

III. **Tariff Revisions**. No later than thirty (30) days after the Commission approves this settlement proposal, Verizon will modify its relevant tariffs pertaining to business listings to allow for an automatic customer credit of 12 months of the fixed monthly charges for Local Exchange Service for any service affecting directory listing error or omission. Verizon will modify its tariffs pertaining to residential service to allow for an automatic customer credit of 6 months of the fixed monthly charges for Local Exchange Service for any service affecting directory listing error or omission for residential listings.

IV. **Multi-year Business Listing Errors**. Failure to correct a previously reported service affecting business directory listing error or omission for the 2nd consecutive publication will result in a separate payment of $7,500 to the Treasurer of Virginia. Failure to correct for the 3rd and following consecutive publication will result in a payment of $10,000. Alternatively, Verizon may choose to negotiate with the customer to provide a resolution acceptable to the customer in lieu of such payments.

V. **Customer Verification of Directory Listings**. All end user customers, including those of CLECs with blanket written permission from their CLEC, will be provided the opportunity to contact Verizon directly to preview their directory listings prior to publication. A CLEC choosing not to grant written permission for its customers to contact Verizon directly may continue to contact Verizon on their customers' behalf. Showbook or its equivalent is sufficient for caption listings. Whether contacted by retail or wholesale end-users, or the CLEC itself, Verizon will verify that Telco records and those of the directory publisher are synchronized.

VI. **Command and Control**. Verizon local telephone companies will, or cause an entity publishing directories on their behalf to, re-publish or supplement a directory when, in the local telephone companies' sole discretion, they determine there are an excessive amount of errors and omissions. This provision does not preclude the Commission from exercising any authority granted by the Constitution and Code of Virginia.

VII. **Reporting**. Verizon shall provide monthly reports to the Staff detailing all customer complaints, whether retail or wholesale, for all directory listing errors and omissions. The reports will include:

- The number of complaints for errors and omissions reported to the hotline outlined in Section VIII and/or to Verizon's Customer Relations Group
- Cause/analysis of each complaint
- When and how each complaint was resolved, including any credits issued to the customer
- For complaints/concerns regarding Directory listings received by the Verizon business offices, Verizon will provide the total number of complaints logged

VIII. **Directory Hotline**. Verizon shall establish a separate toll-free directory hotline and e-mail address for directory listing related complaints, inquiries, etc.; make Verizon retail, CLEC end-users, and CLECs, aware of the new hotline; and ensure that wait times during normal business hours are reasonable, i.e. no more than 3 minutes on average for calls before a "live" person is connected to handle all complaints and other inquiries.

IX. **Sunset.** The requirements imposed herein will automatically sunset in three years after the Commission enters an order approving this settlement proposal, with the exception of Section II, which will expire at the earlier of three years after the Commission enters an order approving this settlement proposal or the conclusion of the Staff's 80th directory audit.

Agreed upon this 10th day of August 2006.

VERIZON VIRGINIA INC.
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By: ____________________

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